

Art Unit: 28

CImpto

G. Stanley

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CLAIMS 1-10 CANCELED

11. A method for varying a capacitance comprising:

fixedly attaching a first number of stationary vanes fixedly to an interior wall of a housing, the first number of vanes being arranged to form a plurality of first vane pairs, first vanes of each first pair being respectively positioned along the wall, and the other vane of each first pair being positioned in a plane with the first vane;

fixedly attaching a second number of vanes to a rotor to form a plurality of second vane pairs, the rotor being centrally positioned within the housing and configured for rotation within the housing, the first number of vanes being spaced apart from the second number of vanes so that a capacitance exists between the first number of vanes and the second number of vanes;

wherein vanes of each of the second vane pairs are positioned on opposite sides of the rotor and radially extend therefrom;

rotating the rotor for interdigitally rotating the second vane pairs between the first vane pairs to cause the second vane pairs to overlap the first vane pairs by an amount dependent on an extent of rotation in order to vary the capacitance in accordance with the amount of overlap; and

circulating a fluid within the stator, the circulating fluid thereby removing heat from the housing.

12. A method according to claim 11, wherein the fluid circulates at a predetermined flow-rate.

13. A method according to claim 12, further comprising:

means for detecting bubbles formed in the circulating fluid; and
means for increasing the flow-rate when the bubbles are detected.